



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/574,700	04/03/2006	Takashi Shiota	207,529	1872
38137 7590 04/01/2008 ABELMAN, FRAYNE & SCHWAB 666 THIRD AVENUE, 10TH FLOOR NEW YORK, NY 10017				
EXAMINER CUEVAS, PEDRO J				
ART UNIT 2834		PAPER NUMBER		
MAIL DATE 04/01/2008		DELIVERY MODE PAPER		

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

# Office Action Summary

**Application No.**

10/574,700

**Applicant(s)**

SHIOTA, TAKASHI

**Examiner**

PEDRO J. CUEVAS

**Art Unit**

2834

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 19 March 2008.  
2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.  
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 6-8 is/are pending in the application.  
4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.  
5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.  
6) ☒ Claim(s) 6-8 is/are rejected.  
7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.  
8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.  
10) ☒ The drawing(s) filed on 03 April 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☒ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☐ Notice of References Cited (PTO-892)  
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)  
3) ☒ Information Disclosure Statement(s) (PTO/CIS)  
Paper No(s)/Mail Date 3/19/08  
4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_  
5) ☐ Notice of Informal Patent Application  
6) ☐ Other: \_\_\_\_\_

## **DETAILED ACTION**

### ***Response to Arguments***

1. Applicant's arguments filed on February 29, 2008 have been fully considered but they are not persuasive.
2. In response to applicant's arguments against the references individually, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986).
3. It should be emphasized that "apparatus claims must be structurally distinguishable from the prior art." MPEP 2114. *In re Danly*, 263 F. 2d 844, 847, 120 USPQ 528, 531 (CCPA 1959) it was held that apparatus claims must be distinguished from prior art in terms of structure rather than function. In *Hewlett-Packard Co. v Bausch & Lomb Inc.*, 909 F.2d 1464, 1469, 15 USPQ2d 1525, 1528 (Fed. Cir. 1990), the court held that: "Apparatus claims cover what a device is, not what it does" (emphases in original). To emphasize the point further, the court added: "An invention need not operate differently than the prior art to be patentable, but need only be different" (emphases in original).
4. In response to applicant's argument that "Kawazoe's object is to utilize both the active power component and the reactive power component by controlling them at a full possible range, namely at a maximum percentage.", a recitation of the intended use of the claimed invention must result in a structural difference between the claimed invention and the prior art in order to patentably distinguish the claimed invention from the prior art. If the prior art structure is capable of performing the intended use, then it meets the claim.

5. In response to applicant's argument that "it would not be obvious to combine the respective features of the three cited references to yield the claimed combination set forth in amended claim 6.", the test for obviousness is not whether the features of a secondary reference may be bodily incorporated into the structure of the primary reference; nor is it that the claimed invention must be expressly suggested in any one or all of the references. Rather, the test is what the combined teachings of the references would have suggested to those of ordinary skill in the art. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981).

***Claim Rejections - 35 USC § 103***

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 6-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 3,483,463 to O. J. M. Smith in view of U.S. Patent Application Publication No. 2003/0007371 A1 to Kawazoe et al., further in view of U.S. Patent No. 6,594,292 B2 to Kawasuji et al.

O. J. M. Smith disclose the construction of a system and method for alternating current machine, and apparatus therefor, comprising:

a power generator (1) comprising a first insulated winding (142) and a second insulated winding (145),

said first winding:

having a smaller number of turns than said second winding and producing a lower induced voltage than said second winding due to said smaller number of turns;

being connected to a first rectifier (169) which rectifies an alternating current power input from said first winding to a direct current power output of the first rectifier; and

said second winding:

being connected in series to a second rectifier (160) which rectifies an alternating current power input from such saturated reactor to a direct current power output of the second rectifier; and

the direct current power outputs of said first rectifier and said second rectifier being connected in parallel (Figure 7), so that when the number of the revolutions below a specified value, output from the second winding is used, and when the number of the revolutions exceeds said specified value output from the first winding and output from the second winding are used, whereby a total output from the first winding and the second winding is approximately equal to the maximum output curve relative to the number of the revolutions.

It has been held that the functional “whereby” statement does not define any structure and accordingly can not serve to distinguish. In *re* Mason, 114 USPQ 127, 44 CCPA 937 (1957).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to use a specific value of revolutions and a specific output value, since it has been held that discovering an optimum value of a result effective variable involves only routine skill in the art. In *re* Boesch, 617 F.2d 272, 205 USPQ 215 (CCPA 1980).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to use a specific upper and lower limit values of revolutions and outputs, since it has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art. *In re Aller*, 105 USPQ 233.

However, it fails to disclose a permanent magnet type electric power generator driven by revolutions of a windmill or a waterwheel, and said second winding being connected in series to a saturated reactor comprising a core that becomes saturated as alternating current power input from said second winding to said core is increased to exceed a certain value, and then the inductance value of the reactor decreases gradually as the alternating current power input to said core from said second winding increases, said saturated reactor being connected to a second rectifier which rectifies an alternating current power input from such saturated reactor to a direct current power output of the second rectifier.

Kawazoe et al. disclose the construction of a using permanent magnet generator, comprising a permanent magnet type electric power generator driven by a windmill or a waterwheel, for the purpose of utilizing the potential energy of the wind or water to generate electrical power.

Kawasuji et al. disclose the construction of a saturable reactor and power source apparatus, comprising a saturated reactor (Figure 1) comprising a core (1) that becomes saturated as alternating current power input from said second winding to said core is increased to exceed a certain value, and then the inductance value of the reactor decreases gradually as the alternating

current power input to said core from said second winding increases, for the purpose of providing electrical power to a pulse laser.

It would have been obvious to one skilled in the art at the time the invention was made to use the saturated reactor disclosed by Kawasuji et al. with the system and method for alternating current machine disclosed by O. J. M. Smith on the power generation apparatus disclosed by Kawazoe et al. for the purpose of utilizing the potential energy of the wind or water to generate electrical power.

7. With regards to claim 7, O. J. M. Smith disclose a constant-voltage power supply (163) to which the direct current power outputs of said first rectifier and said second rectifier are connected, whereby the constant-voltage power supply is charged by said direct current power outputs.

8. With regards to claims 8, it would have been obvious to one having ordinary skill in the art at the time the invention was made to use a battery as a constant voltage power supply, since the examiner takes Official Notice of the equivalence of a constant voltage power supply and a battery for their use in the electric power generation art and the selection of any of these known equivalents to provide a constant voltage would be within the level of ordinary skill in the art.

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to PEDRO J. CUEVAS whose telephone number is (571)272-2021. The examiner can normally be reached on M-F from 8:30 - 6:00. 10574700If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Darren E. Schuberg can

be reached on (571) 272-2044. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Pedro J. Cuevas/  
Examiner, Art Unit 2834  
April 1, 2008

/Darren Schuberg/  
Supervisory Patent Examiner, Art Unit 2834